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(54) **INTRAOCULAR LENS FOR CORRECTING CORNEAL COMA**

(75) Inventors: **Juan Tabernero**, Murcia (ES); **Pablo Artal**, Murcia (ES); **Patricia Piers**, Groningen (NL)

(73) Assignee: **Abbott Medical Optics Inc.**, Santa Ana, CA (US)

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(58) **Field of Classification Search**
USPC 623/6.11
See application file for complete search history.

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Primary Examiner — Bruce E Snow
Assistant Examiner — Melissa Hoban
(74) *Attorney, Agent, or Firm* — Abbott Medical Optics Inc.

(57) **ABSTRACT**

When fitting a patient for an intraocular lens, a series of measurements is taken on the patient's eye that determines a required lens power. Next, a range of preferred shape factors may be found, which determine the base (i.e., spherical) radii of the two lens surfaces, essentially independent of the lens power. The preferred shape factor adjusts the third-order coma of the lens to largely offset the coma of the cornea, so that the image at the retina has a reduced amount of third-order coma. Once a preferred shape factor is determined, the base radii of curvature of the anterior and posterior surfaces are determined from the shape factor and the lens power by algebraic formulas. Finally, one or more aspheric terms are added to one or both of the surfaces in the lens, so that the spherical aberration of the lens largely offsets the spherical aberration of the cornea.

21 Claims, 15 Drawing Sheets